

What is claimed is:

1. An electronic document information expansion apparatus for expanding information on an electronic document comprising:
 - an input section inputting the electronic document;
 - an information analysis section extracting location information on data included in an input electronic document from the electronic document;
 - an external data acquisition section acquiring external data that can be added to the electronic document based on the extracted location information;
 - an information addition section generating addition data to be added to said electronic document using the acquired external data; and
 - a structured data generation section combining the addition data generated by said information addition section with said electronic document, and generating structured data with the information on the electronic document expanded.
2. The electronic document information expansion apparatus according to claim 1, wherein said information analysis section analyzes and divides said input electronic document into information units, and extracts the location information on the data included in each of the information units.
3. The electronic document information expansion apparatus according to claim 2, wherein said external data acquisition section acquires the external data that can be reached by tracking the location information up to preset hierarchies from a location indicated by the location information on the data included in each of the information units.
4. The electronic document information expansion apparatus according to claim 2, wherein said external data acquisition section

acquires the external data after determining whether the external data is similar to one of the electronic document as an information expansion target and a content of each of the information units.

5. The electronic document information expansion apparatus according to claim 4, wherein said external data acquisition section acquires the external data only when a similarity exceeds a certain threshold in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units.

6. The electronic document information expansion apparatus according to claim 4, wherein said external data acquisition section acquires the external data having a highest similarity to one of the electronic document as the information expansion target and the content of each of the information unit in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units.

7. The electronic document information expansion apparatus according to claim 4, wherein said external data acquisition section conducts a preprocessing for removing control characters other than a hyperlink, to the external data, in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units.

8. The electronic document information expansion apparatus according to claim 4, wherein said external data acquisition section conducts a preprocessing for extracting a keyword, to the external data, in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units.

9. The electronic document information expansion apparatus

according to claim 2, wherein said information addition section extracts a keyword from the external data acquired by said external data acquisition section.

10. The electronic document information expansion apparatus according to claim 9, wherein said structured data generation section combines a keyword extracted from a content of each of the information units with the keyword extracted from said external data, and generates structured data.

11. The electronic document information expansion apparatus according to claim 9, wherein said structured data generation section generates structured data while discriminating a keyword extracted from a content of each of the information units from the keyword extracted from said external data.

12. The electronic document information expansion apparatus according to claim 1, wherein said electronic document is an e-mail document.

13. An electronic document information expansion method for expanding information on an electronic document, the method comprising:

an information analysis step of extracting location information on data included in an input electronic document from the electronic document;

an external data acquisition step of acquiring external data that can be added to the electronic document based on the extracted location information;

an information addition step of generating addition data to be added to said electronic document using the acquired external data; and

a structured data generation step of combining the addition data generated in said information addition step with said electronic

document, and generating structured data with the information on the electronic document expanded.

14. The electronic document information expansion method according to claim 13, wherein in the information analysis step, said input electronic document is analyzed and divided into information units, and wherein

in said information analysis step, said external data acquisitions step, said information addition step, and said structured data generation step, a predetermined processing is conducted to each of said divided information units.

15. The electronic document information expansion method according to claim 14, wherein in said external data acquisition step, the external data that can be reached by tracking the location information up to preset hierarchies is acquired from a location indicated by the location information on the data included in each of the information units.

16. The electronic document information expansion method according to claim 14, wherein in said external data acquisition step, the external data is acquired after determining whether the external data is similar to one of the electronic document as an information expansion target and a content of each of the information units.

17. The electronic document information expansion method according to claim 13, wherein said electronic document is an e-mail document.

18. An electronic document information expansion program in which the steps of the electronic document information expansion method according to claim 13 are described in codes that can be processed by a computer.

19. A recording medium recording the electronic document information expansion program according to claim 18.